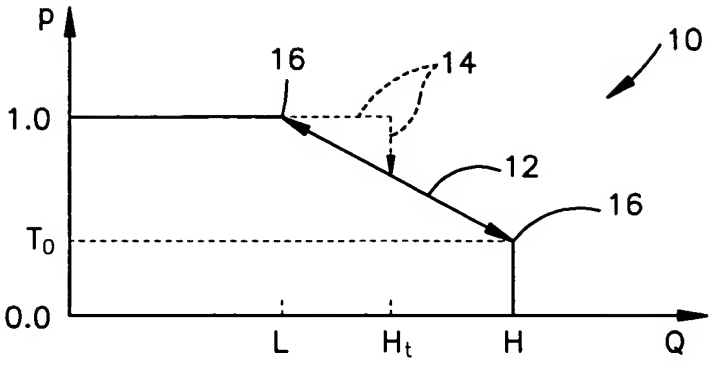

Fig.1

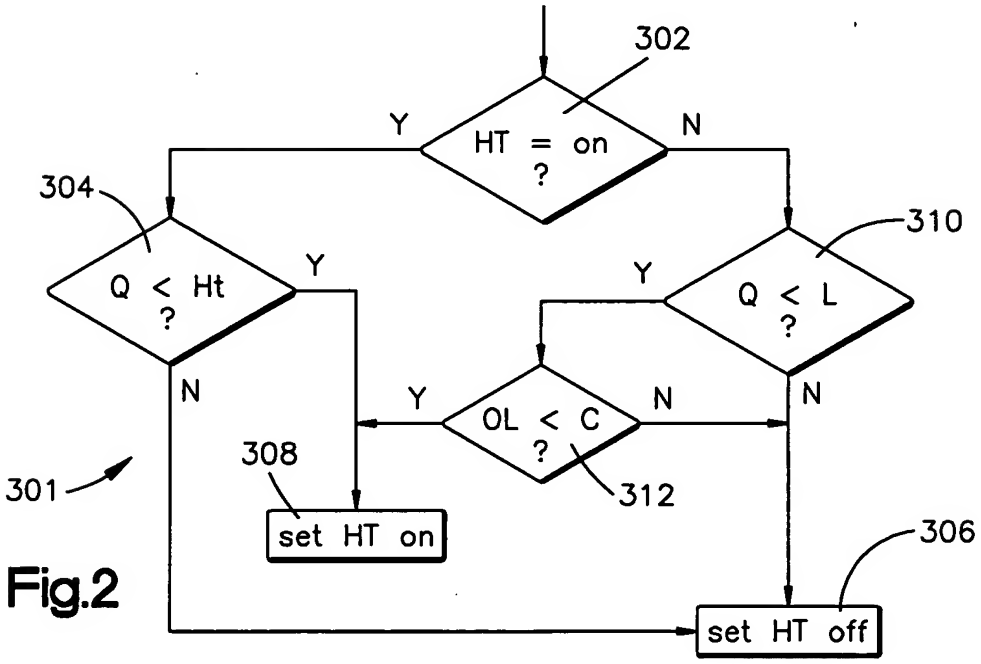

Fig.2

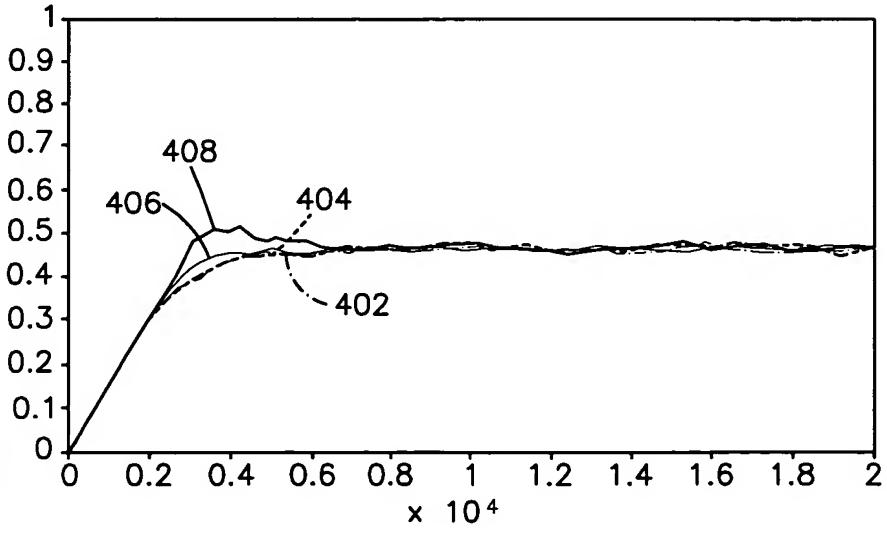

Fig.3

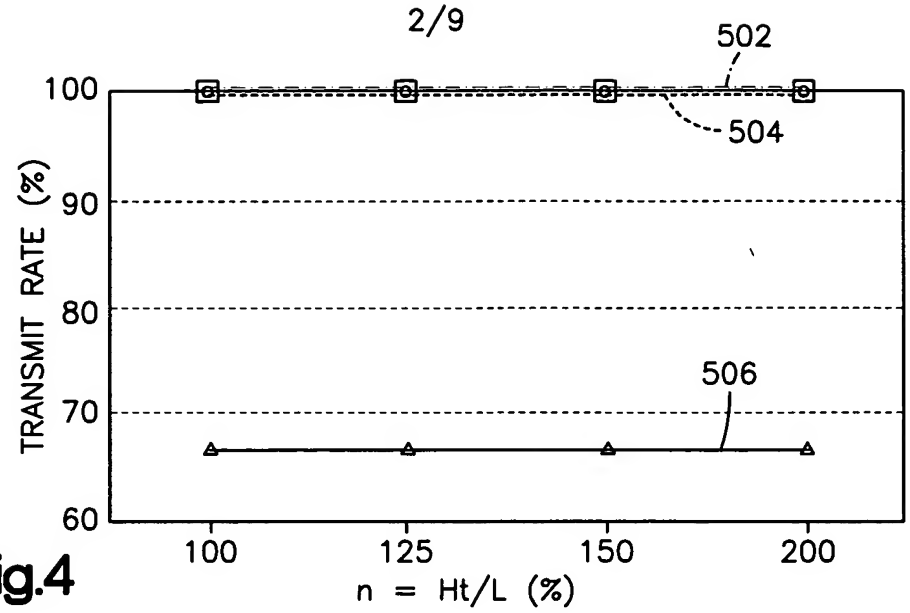

Fig.4

case	On/Off (Seconds)	Hysteris Factor (n = Ht / L)			
		1.00	1.25	1.50	2.00
B10	1.0/0.5	82.82	82.87	82.92	83.25
B08	0.8/0.5	86.25	86.30	86.44	87.25
B06	0.6/0.5	88.49	91.12	91.53	94.21
B05	0.5/0.5	93.94	94.15	94.92	99.57
B04	0.4/0.5	96.93	97.43	99.04	100.00

Fig.5

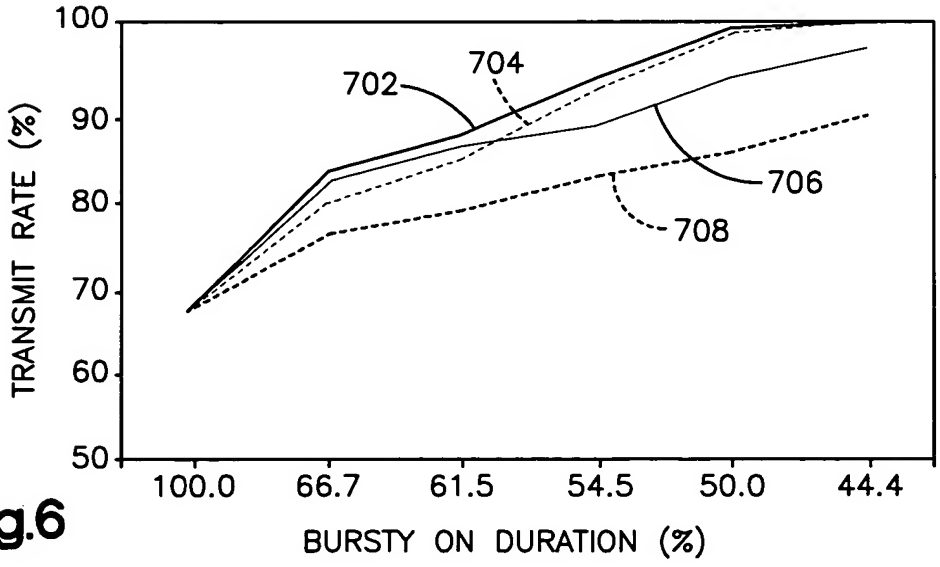

Fig.6

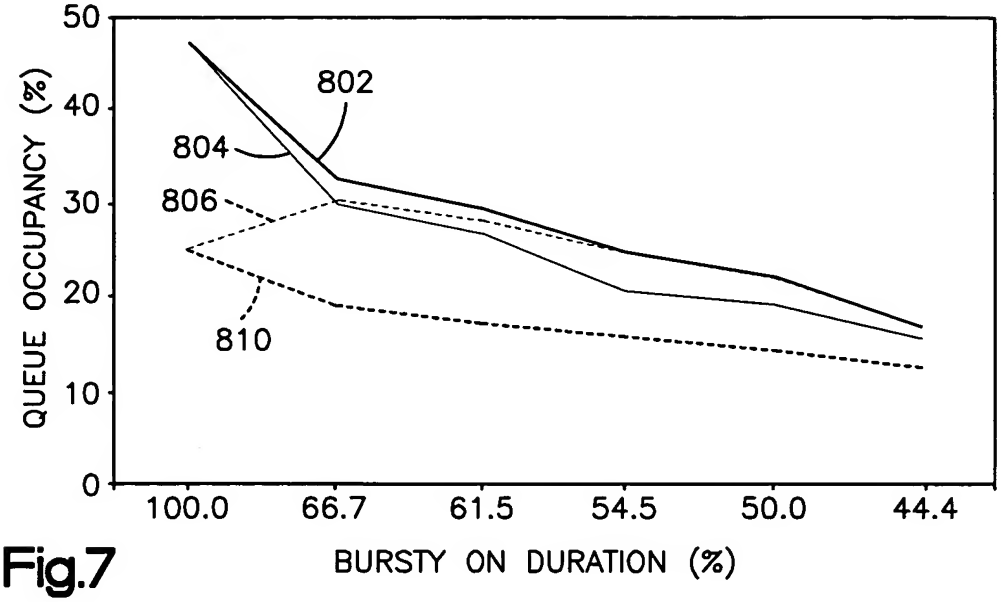

Fig.7

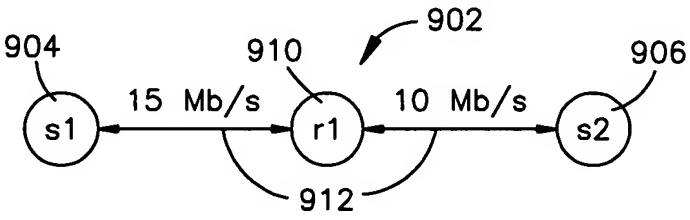

Fig.8

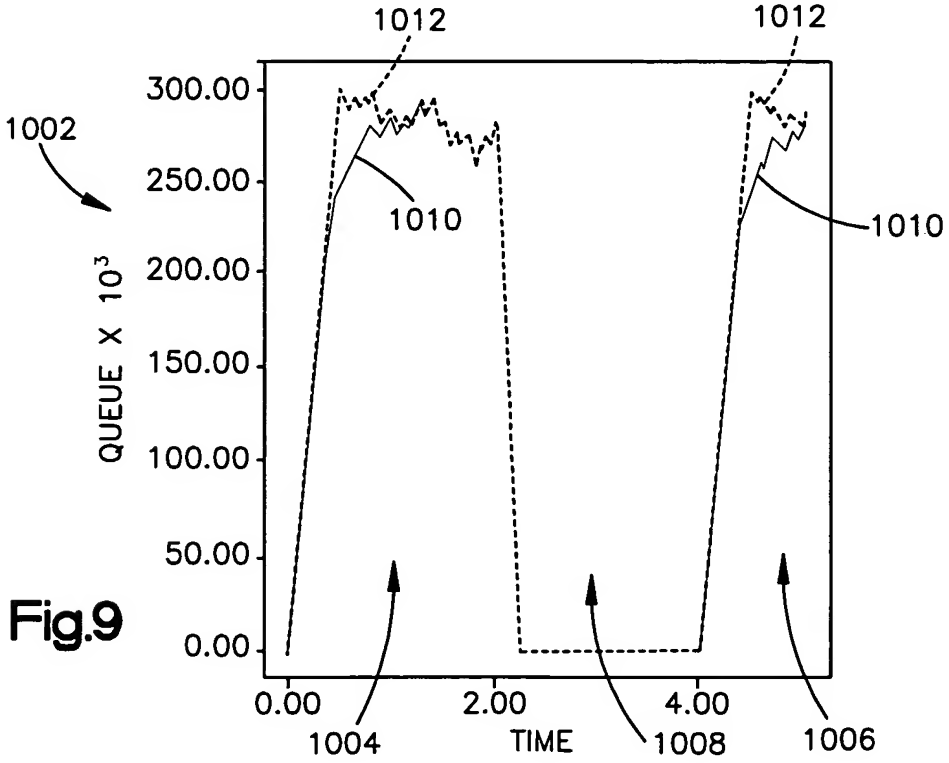

Fig.9

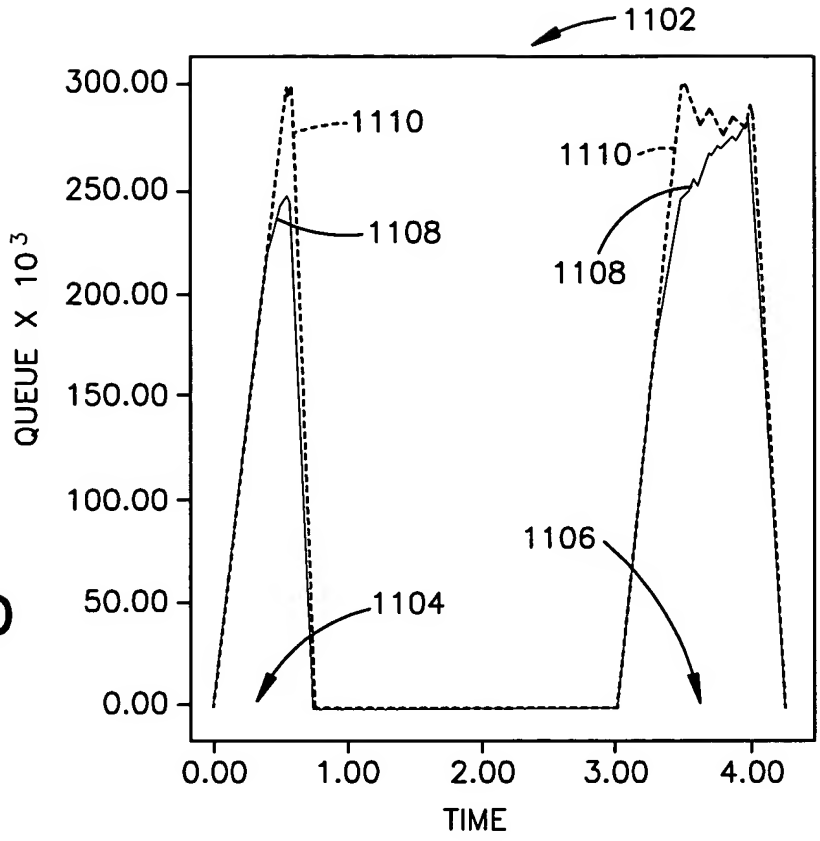
1102
300.00
250.00
200.00
150.00
100.00
50.00
0.00
QUEUE X 10^3
1110
1110
1108
1108
1106
1104
0.00
1.00
2.00
3.00
4.00
TIME

Fig.10

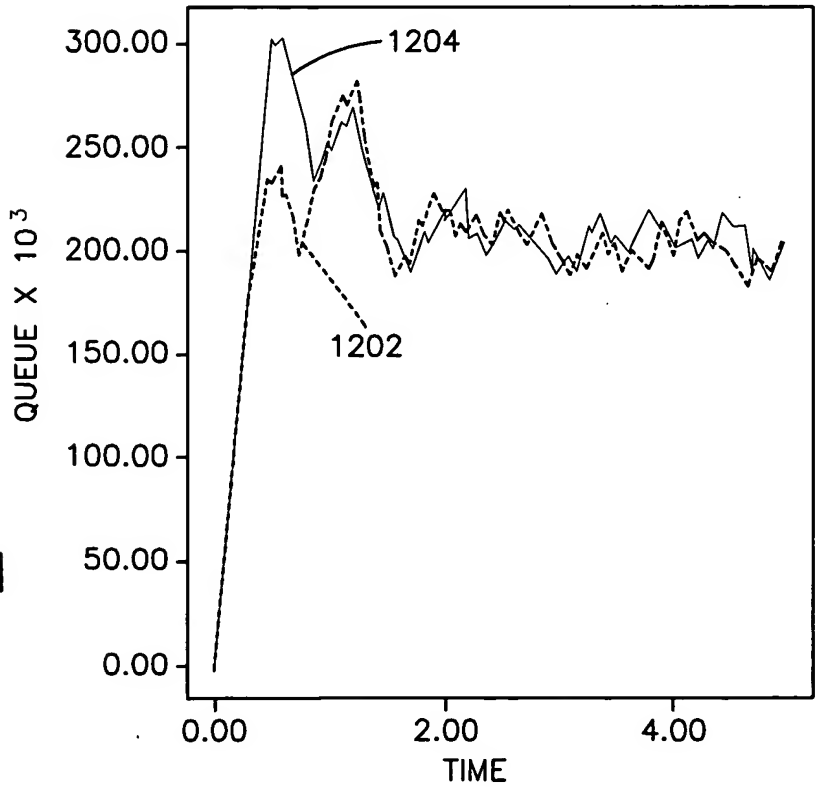
300.00
250.00
200.00
150.00
100.00
50.00
0.00
QUEUE X 10^3
1204
1202
0.00
2.00
4.00
TIME

Fig.11

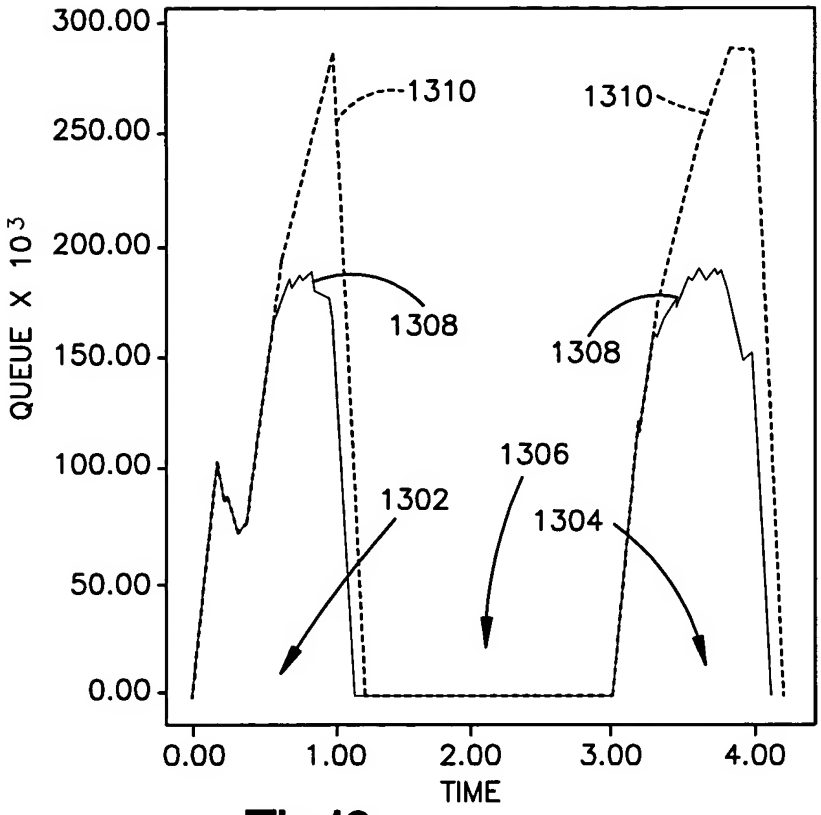

Fig.12

Packet Drop statistics:

TRAFFIC PATTERN	WITHOUT HYSTERISIS	WITH HYSTERISIS
UDP long burst	733(burst1:358, burst2:375)	724(burst1:352, burst2:372)
UDP short + long burst	437(burst1:80, burst2:357)	384(burst1:31, burst2:353)
TCP Tahoe (const traffic)	1,103	1,152
TCP Reno (short burst)	100(burst1:48, burst2:52)	0

Packet Transmit statistics:

TRAFFIC PATTERN	WITHOUT HYSTERISIS	WITH HYSTERISIS
UDP long burst	3,116	3,125
UDP short + long burst	2,474	2,527
TCP Tahoe (const traffic)	6,249	6,249
TCP Reno (short burst)	2,877	3,087

Fig.13

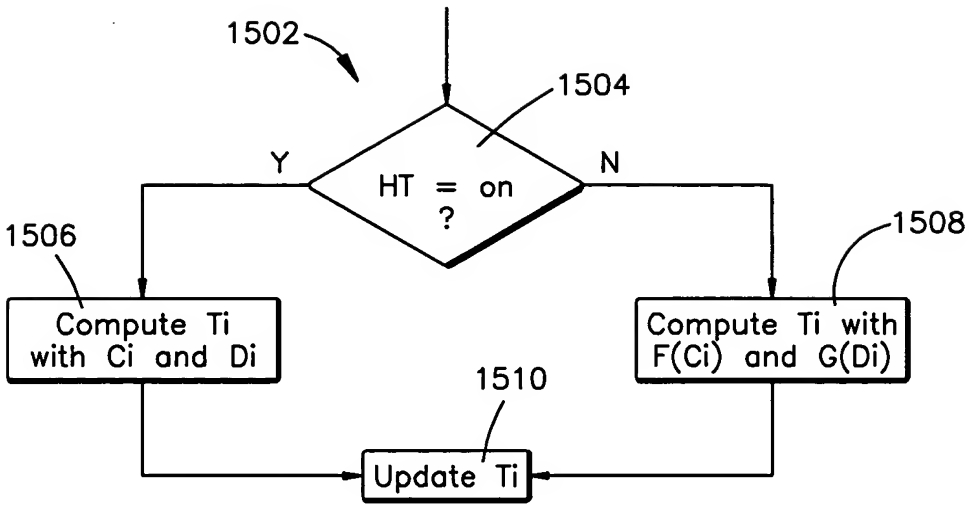
1502
1504
HT = on ?
Y
N
1506
1508
Compute Ti with Ci and Di
Compute Ti with F(Ci) and G(Di)
1510
Update Ti

Fig.14

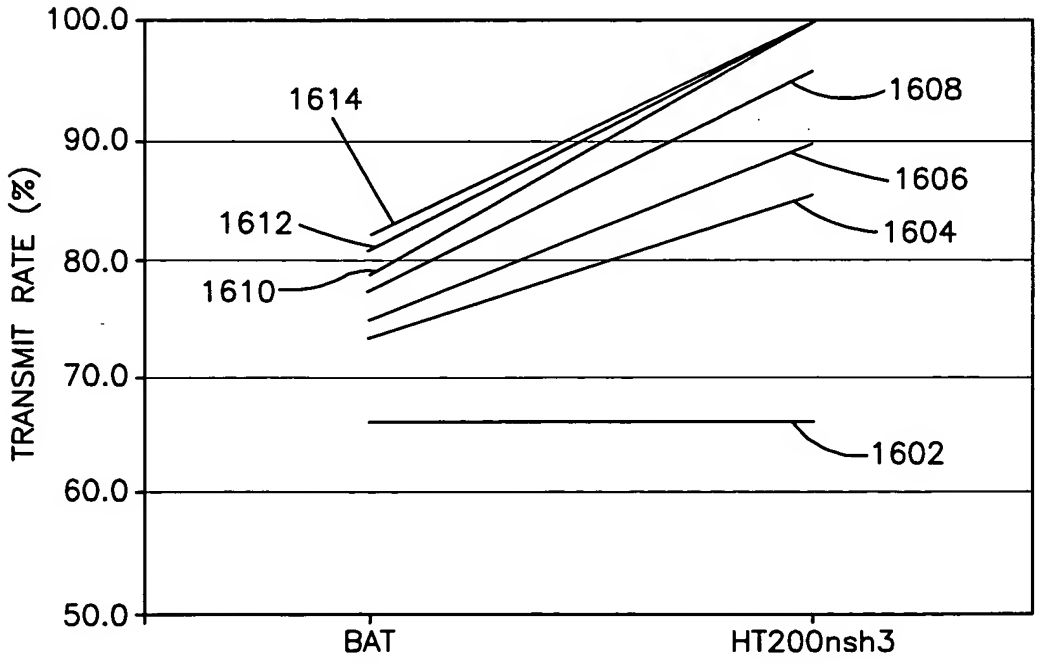
100.0
90.0
80.0
70.0
60.0
50.0
TRANSMIT RATE (%)
1614
1608
1606
1612
1604
1610
1602
BAT
HT200nsh3

Fig.15

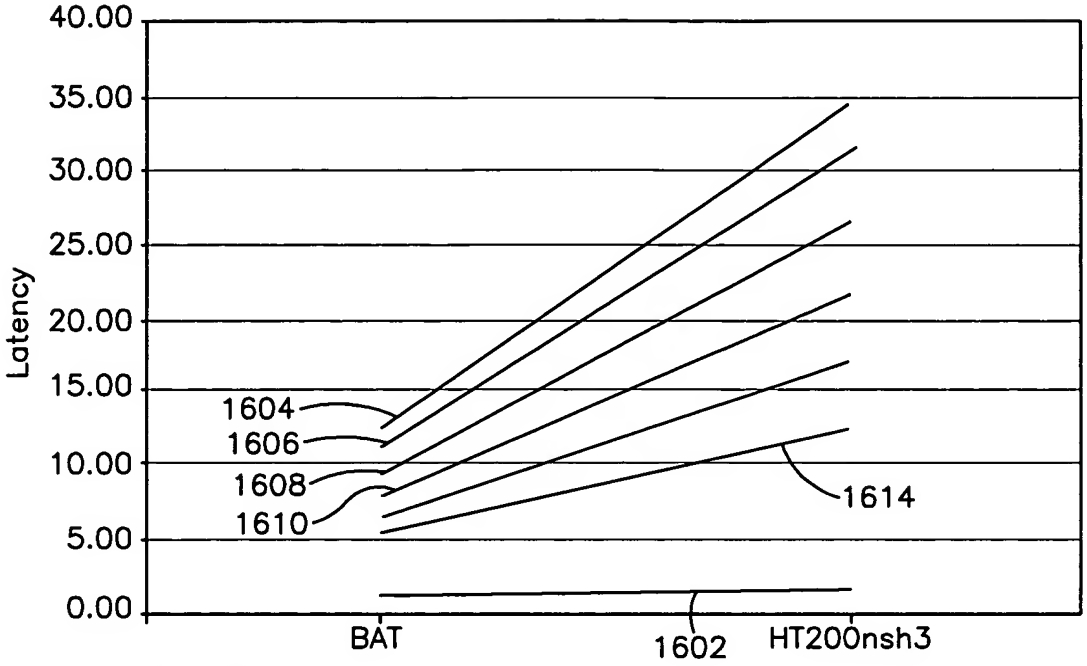
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
Latency
1604
1606
1608
1610
1614
1602
BAT
HT200nsh3

Fig.16

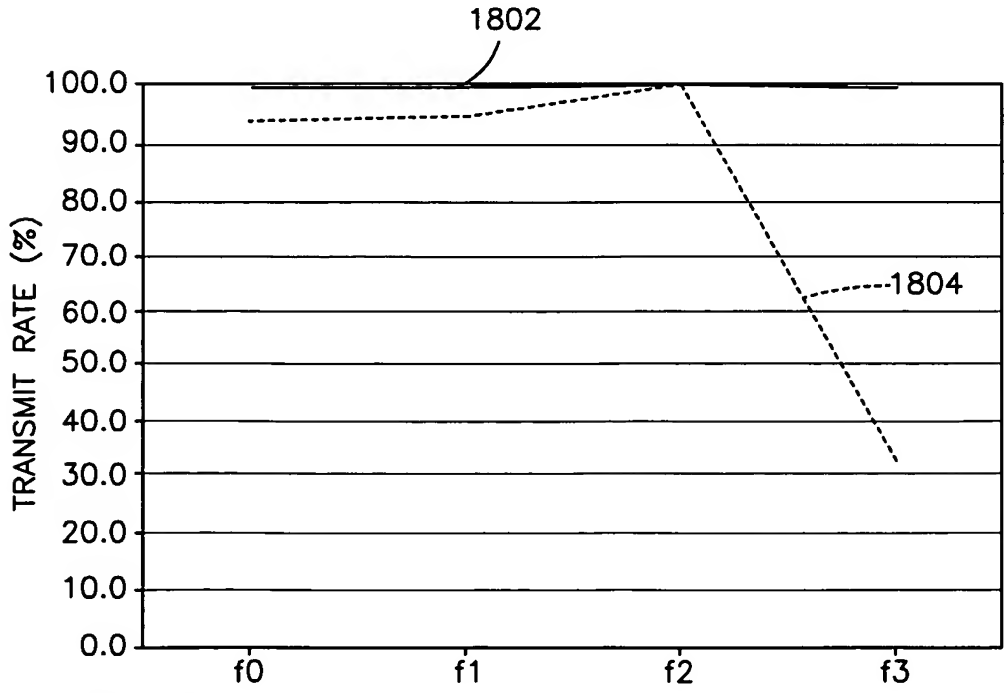
1802
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
TRANSMIT RATE (%)
1804
f0
f1
f2
f3

Fig.17

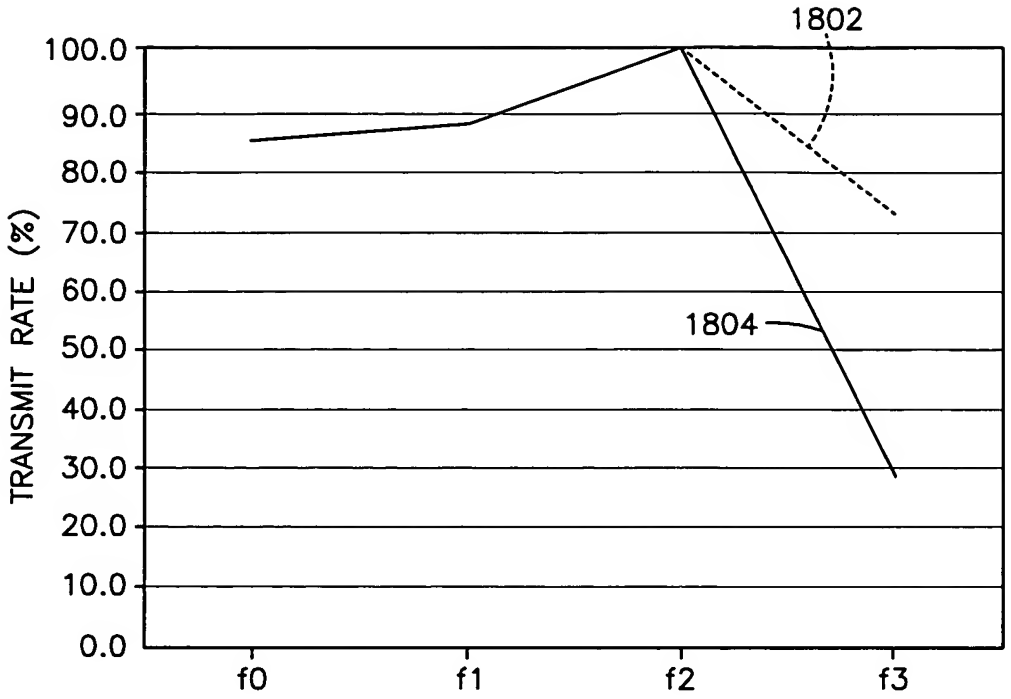
1802
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
TRANSMIT RATE (%)
1804
f0
f1
f2
f3

Fig.18

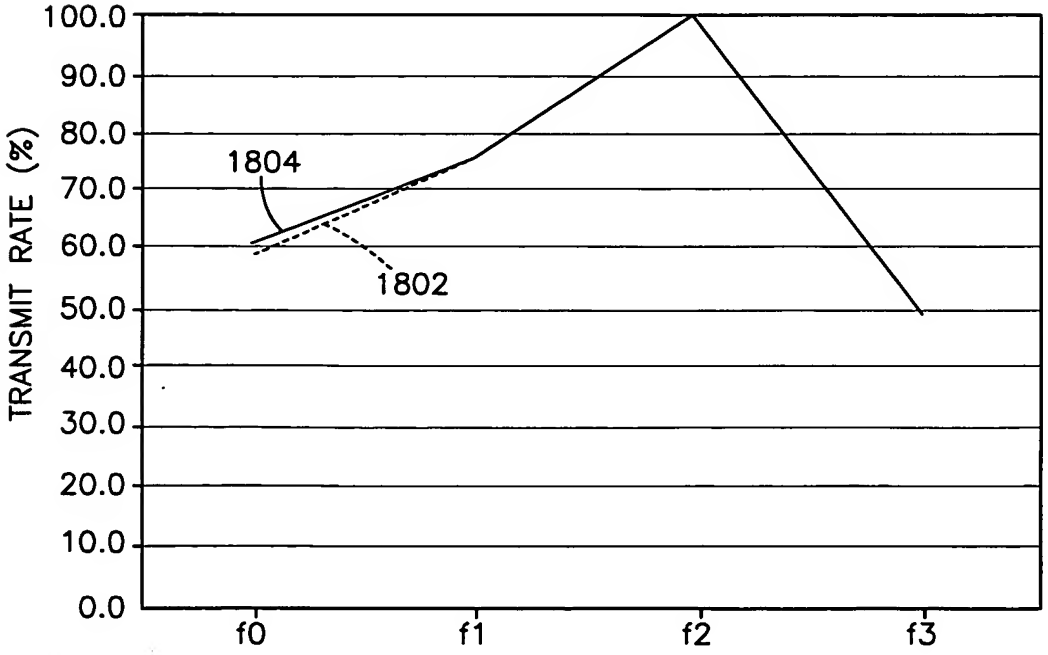
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
TRANSMIT RATE (%)
1804
1802
f0
f1
f2
f3

Fig.19

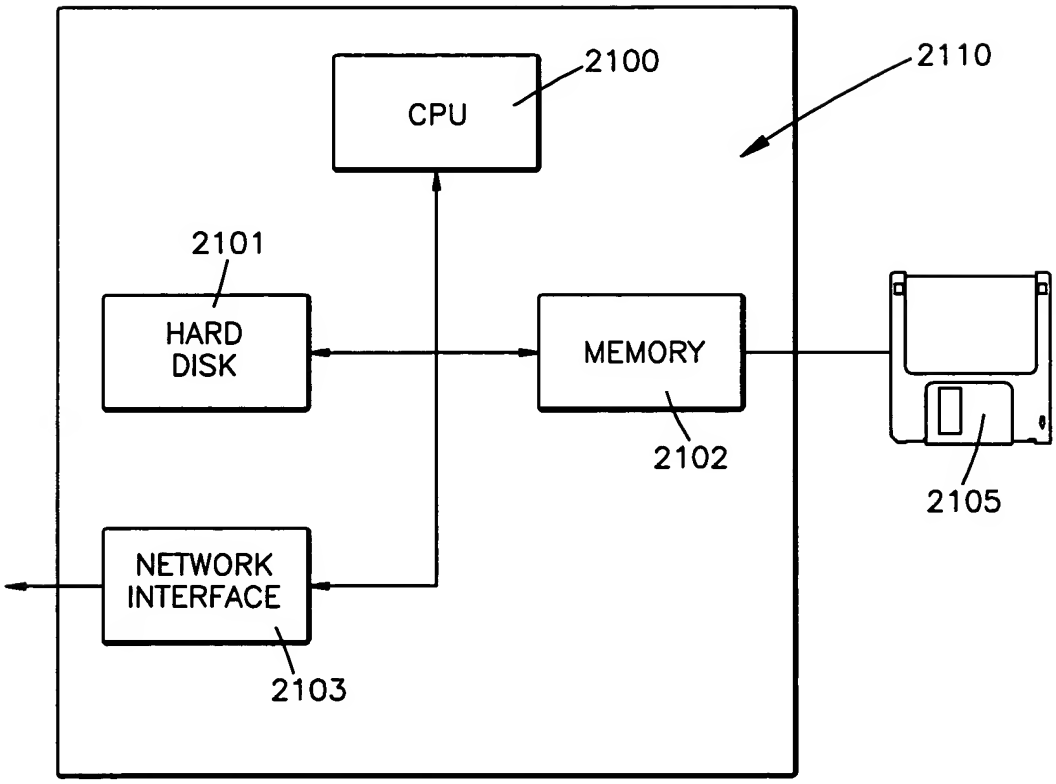
CPU
2100
2110
2101
HARD DISK
MEMORY
2102
2105
NETWORK INTERFACE
2103

Fig.20